

# INDUSTRY CIRCULAR

OFFICE OF THE COMMISSIONER OF INTERNAL REVENUE  
ALCOHOL AND TOBACCO TAX DIVISION



Industry Circular No. 58-11

May 29, 1958

## USE OF QUASSIN IN THE MANUFACTURE OF SPECIALLY DENATURED ALCOHOL FORMULA NO. 40

**Proprietors of denaturing plants;  
and others concerned:**

**Purpose.** The purpose of this industry circular is to advise you that quassin may be used as a substitute denaturant for brucine (alkaloid) or brucine sulfate in the manufacture of specially denatured alcohol Formula No. 40.

**Background.** A critical shortage of brucine has developed as a result of the curtailment of strychnine production and there is no indication as to when the shortage may terminate. In order that the production of specially denatured alcohol Formula No. 40 will not be adversely affected, a substitute denaturant for brucine has been authorized.

**Substitute Denaturant.** In accordance with the provisions of 26 CFR 212.65, quassin, denaturing grade, in the amount of 1.5 avoirdupois ounces to each 100 gallons of ethyl alcohol, is authorized as a substitute denaturant for brucine (alkaloid) or brucine sulfate in the production of Formula No. 40. Basic data concerning quassin is as follows:

### Basic Data


**Quassin** - the bitter principle of quassia wood, (occurring as a mixture of two isomeric forms).

**Specifications** - Quassin, Denaturing Grade - This shall be a good commercial grade of purified amorphous quassin, standardized as to bitterness by the following method:  
When 0.4 gram is added to 20 ml of ethyl alcohol it shall dissolve completely. When 0.2 ml of this solution, measured from a burette is made up to 1 liter with water, the mixture shall have a distinctly bitter taste.

**Identification Test** - Dissolve about 0.5 gram quassin, Denaturing Grade, in 10 ml of 95% ethyl alcohol and filter. To 5 ml of the filtrate add 5 ml of concentrated hydrochloric acid and 1 mg phloroglucinol and mix well. A red color develops.

**Optical Assay** - When 1 gram of quassin denaturing grade is dissolved in 10,000 ml of water, the Absorbance of the solution in a 1 cm. cell at a wavelength of 258 millimicrons shall be not less than 0.550 (for convenience of solution initially dissolve the quassin in a small amount of 95% alcohol).

**Inquiries.** Inquiries regarding this industry circular should refer to its number and be addressed to the office of your assistant regional commissioner (alcohol and tobacco tax).



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